Performance Data Sheet

AE2420Z-DS1B

General Information

Model	AE2420Z-DS1B	**Refrigerant**	R-404A
Test Condition	EN12900 ASERCOM	**Performance Test Voltage**	127V ~ 60HZ
Return Gas	20°C (68°F) RETURN GAS	**Motor Type**	CSIR

Performance Information

Evap Temp (°F)		Condensing Temperature (°F)						
		80	**90**	**100**	**110**	**120**	**130**	**140**
-40	Btu/h	1080	942	821	712	614	523	439
	Watts	292	295	297	295	290	280	266
	Amps	5.43	5.46	5.47	5.46	5.43	5.37	5.29
	Lb/h	16.2	15.0	14.0	13.1	12.3	11.6	10.9
-35	Btu/h	1260	1120	987	865	751	643	539
	Watts	315	319	321	321	318	312	301
	Amps	5.49	5.51	5.53	5.53	5.51	5.47	5.40
	Lb/h	19.0	17.8	16.8	15.9	15.0	14.1	13.2
-30	Btu/h	1470	1320	1170	1040	906	779	652
	Watts	337	342	346	348	347	344	336
	Amps	5.56	5.59	5.61	5.61	5.61	5.58	5.53
	Lb/h	22.2	21.1	20.0	19.0	18.0	17.0	15.9
-25	Btu/h	1700	1540	1380	1230	1080	930	779
	Watts	361	366	371	375	377	376	372
	Amps	5.64	5.67	5.69	5.71	5.71	5.70	5.67
	Lb/h	25.8	24.6	23.6	22.5	21.4	20.3	19.0
-20	Btu/h	1960	1780	1610	1440	1270	1100	922
	Watts	384	390	397	402	406	408	407
	Amps	5.73	5.77	5.79	5.82	5.83	5.84	5.83
	Lb/h	29.7	28.6	27.5	26.4	25.2	24.0	22.6
-15	Btu/h	2240	2050	1860	1670	1480	1280	1080
	Watts	409	415	423	430	436	441	443
	Amps	5.84	5.87	5.91	5.94	5.96	5.98	5.99
	Lb/h	34.1	33.0	31.9	30.7	29.5	28.1	26.5
-10	Btu/h	2540	2340	2130	1920	1700	1480	1250
	Watts	434	441	449	457	466	473	479
	Amps	5.95	5.99	6.03	6.07	6.11	6.14	6.17
	Lb/h	38.9	37.8	36.7	35.5	34.2	32.7	31.0
-5	Btu/h	2880	2650	2420	2190	1950	1700	1440
	Watts	459	466	475	486	496	506	515
	Amps	6.07	6.11	6.16	6.21	6.26	6.31	6.36
	Lb/h	44.1	43.0	42.0	40.7	39.3	37.7	35.9

0	Btu/h	3240	2990	2740	2490	2220	1940	1650
	Watts	484	492	502	514	526	539	550
	Amps	6.20	6.24	6.29	6.35	6.42	6.49	6.55
	Lb/h	49.7	48.8	47.7	46.4	45.0	43.3	41.3
5	Btu/h	3620	3360	3080	2800	2510	2200	1870
	Watts	511	519	530	542	557	572	586
	Amps	6.34	6.38	6.44	6.51	6.59	6.67	6.76
	Lb/h	55.8	54.9	53.9	52.6	51.1	49.3	47.2
10	Btu/h	4040	3750	3450	3140	2820	2470	2110
	Watts	537	545	557	571	587	605	622
	Amps	6.48	6.53	6.59	6.67	6.77	6.87	6.97
	Lb/h	62.4	61.6	60.6	59.3	57.7	55.9	53.6

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	5.250118E+03	5.933499E+02	6.613715E+00	5.844192E+01
C2	8.844309E+01	8.618730E+00	4.673152E-02	8.142168E-01
C3	-2.845672E+01	-4.146059E+00	-1.670164E-02	-1.753031E-01
C4	7.981150E-01	1.988638E-02	9.297290E-05	8.367949E-03
C5	2.523160E-02	-8.641009E-02	-5.244792E-04	7.579120E-03
C6	6.965955E-02	4.466789E-02	1.822753E-04	1.429069E-03
C7	6.828058E-04	-1.219541E-05	-9.626038E-07	2.350413E-05
C8	-3.228245E-03	-1.356564E-04	6.363764E-07	1.289926E-05
C9	-2.499357E-03	5.437163E-04	3.422438E-06	-3.806905E-05
C10	-3.582534E-04	-1.231486E-04	-4.718200E-07	-7.528151E-06

Value = C1 + C2 * Te + C4 * Te^2 + C7 * Te^3 + (C3 + C5 * Te + C8 * Te^2) * Tc + (C6 + C9 * Te) * Tc^2 + C10 * Tc^3

Te = Evaporator Temperature

Tc = Condensing Temperature

Performance Data Sheet

AE2420Z-DS1B

General Information

Model	AE2420Z-DS1B	**Refrigerant**	R-404A
Test Condition	EN12900 ASERCOM	**Performance Test Voltage**	115V ~ 60HZ
Return Gas	20°C (68°F) RETURN GAS	**Motor Type**	CSIR

Performance Information

Evap Temp (°F)		Condensing Temperature (°F)						
		80	**90**	**100**	**110**	**120**	**130**	**140**
-40	Btu/h	1160	1030	896	765	644	540	462
	Watts	266	269	271	271	267	259	245
	Amps	4.54	4.54	4.55	4.54	4.52	4.47	4.38
	Lb/h	17.2	16.3	15.3	14.1	12.9	11.9	11.3
-35	Btu/h	1320	1180	1040	902	769	650	553
	Watts	289	293	296	297	295	289	279
	Amps	4.64	4.65	4.66	4.66	4.65	4.62	4.54
	Lb/h	19.6	18.8	17.8	16.5	15.3	14.2	13.5
-30	Btu/h	1510	1360	1210	1060	914	778	661
	Watts	313	317	321	323	323	320	313
	Amps	4.76	4.77	4.79	4.80	4.80	4.78	4.72
	Lb/h	22.5	21.8	20.7	19.5	18.2	17.0	16.0
-25	Btu/h	1720	1570	1410	1240	1080	924	785
	Watts	338	342	347	351	353	352	347
	Amps	4.90	4.91	4.93	4.95	4.96	4.96	4.92
	Lb/h	25.8	25.1	24.1	22.8	21.4	20.1	19.1
-20	Btu/h	1960	1800	1630	1450	1260	1090	925
	Watts	363	368	373	379	382	384	382
	Amps	5.05	5.06	5.08	5.12	5.14	5.15	5.14
	Lb/h	29.6	29.0	27.9	26.6	25.2	23.8	22.6
-15	Btu/h	2230	2060	1870	1670	1470	1270	1080
	Watts	389	394	400	407	413	417	418
	Amps	5.20	5.22	5.25	5.30	5.34	5.36	5.37
	Lb/h	33.8	33.2	32.2	30.9	29.4	27.9	26.5
-10	Btu/h	2530	2340	2140	1920	1700	1470	1250
	Watts	415	421	428	436	444	450	455
	Amps	5.37	5.39	5.43	5.49	5.54	5.59	5.62
	Lb/h	38.5	38.0	36.9	35.6	34.0	32.4	30.9
-5	Btu/h	2860	2660	2430	2190	1940	1690	1440
	Watts	442	448	456	465	475	484	492
	Amps	5.55	5.58	5.63	5.69	5.76	5.83	5.88
	Lb/h	43.6	43.2	42.2	40.8	39.2	37.5	35.8

0	Btu/h	3210	2990	2750	2480	2210	1930	1650
	Watts	469	475	484	495	507	518	529
	Amps	5.74	5.77	5.83	5.91	6.00	6.08	6.15
	Lb/h	49.2	48.8	47.8	46.4	44.8	43.0	41.2
5	Btu/h	3590	3360	3090	2800	2490	2180	1870
	Watts	496	503	513	525	539	553	567
	Amps	5.93	5.97	6.04	6.14	6.24	6.34	6.44
	Lb/h	55.3	55.0	54.0	52.6	50.8	48.9	47.0
10	Btu/h	4010	3750	3450	3140	2800	2460	2110
	Watts	524	531	542	555	571	588	605
	Amps	6.14	6.18	6.26	6.37	6.49	6.62	6.74
	Lb/h	61.9	61.6	60.7	59.2	57.4	55.4	53.4

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	3.148851E+03	6.453181E+02	7.722603E+00	1.407049E+01
C2	8.331216E+01	8.740735E+00	5.270920E-02	8.034789E-01
C3	2.934708E+01	-5.904065E+00	-6.170162E-02	1.047316E+00
C4	8.910860E-01	3.352018E-03	2.817327E-05	9.373136E-03
C5	1.113890E-01	-8.475842E-02	-4.540831E-04	7.677689E-03
C6	-4.517533E-01	5.962723E-02	5.957212E-04	-9.591020E-03
C7	8.192348E-05	-7.325631E-05	-1.238391E-06	9.525994E-06
C8	-4.018993E-03	2.845035E-05	1.599390E-06	2.735179E-06
C9	-2.872085E-03	5.422679E-04	3.429373E-06	-3.858015E-05
C10	1.181876E-03	-1.670652E-04	-1.678890E-06	2.495378E-05

Value = C1 + C2 * Te + C4 * Te^2 + C7 * Te^3 + (C3 + C5 * Te + C8 * Te^2) * Tc + (C6 + C9 * Te) * Tc^2 + C10 * Tc^3

Te = Evaporator Temperature

Tc = Condensing Temperature

Performance Data Sheet

AE2420Z-DS1B

General Information

Model	AE2420Z-DS1B	**Refrigerant**	R-404A
Test Condition	EN12900 ASERCOM	**Performance Test Voltage**	127V ~ 60HZ
Return Gas	20°C (68°F) RETURN GAS	**Motor Type**	CSIR

Performance Information

Evap Temp (°C)		Condensing Temperature (°C)			
		30	40	50	60
-40	Btu/h	994	776	595	439
	Watts (Power)	294	296	288	266
	Amps	5.45	5.47	5.42	5.29
	Lb/h	15.4	13.6	12.2	10.9
-35	Btu/h	1330	1080	849	628
	Watts (Power)	336	342	341	329
	Amps	5.56	5.59	5.58	5.51
	Lb/h	20.8	18.9	17.2	15.3
-30	Btu/h	1750	1450	1160	863
	Watts (Power)	378	388	395	393
	Amps	5.71	5.76	5.78	5.76
	Lb/h	27.4	25.5	23.4	21.1
-25	Btu/h	2240	1890	1530	1150
	Watts (Power)	423	436	449	457
	Amps	5.90	5.97	6.03	6.06
	Lb/h	35.3	33.3	31.0	28.2
-23.3	Btu/h	2420	2050	1660	1250
	Watts (Power)	438	453	468	479
	Amps	5.97	6.04	6.12	6.17
	Lb/h	38.3	36.3	34.0	31.0
-20	Btu/h	2810	2390	1950	1480
	Watts (Power)	468	485	504	522
	Amps	6.12	6.20	6.30	6.39
	Lb/h	44.6	42.6	40.1	36.9
-15	Btu/h	3460	2970	2450	1870
	Watts (Power)	515	534	560	586
	Amps	6.36	6.47	6.60	6.76
	Lb/h	55.3	53.4	50.8	47.2
-10	Btu/h	4200	3630	3010	2320
	Watts (Power)	563	585	616	651
	Amps	6.63	6.75	6.93	7.15
	Lb/h	67.7	65.8	63.1	59.1

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	7.907073E+03	7.230314E+02	7.405455E+00	9.637906E+01
C2	2.398620E+02	1.326206E+01	6.794857E-02	2.973487E+00
C3	-5.888890E+01	-6.221035E+00	-2.809437E-02	1.274510E-01
C4	2.463568E+00	4.657376E-02	6.780342E-05	3.576027E-02
C5	-1.105925E+00	-1.953534E-01	-8.576769E-04	1.933714E-02
C6	-1.448675E-01	1.627923E-01	7.986555E-04	-1.658372E-03
C7	3.982123E-03	-7.112363E-05	-5.613905E-06	1.370761E-04
C8	-1.882712E-02	-7.911481E-04	3.711347E-06	7.522848E-05
C9	-1.457625E-02	3.170953E-03	1.995966E-05	-2.220187E-04
C10	-2.089334E-03	-7.182026E-04	-2.751654E-06	-4.390418E-05

Value = C1 + C2 * Te + C4 * Te^2 + C7 * Te^3 + (C3 + C5 * Te + C8 * Te^2) * Tc + (C6 + C9 * Te) * Tc^2 + C10 * Tc^3

Te = Evaporator Temperature

Tc = Condensing Temperature

Performance Data Sheet

AE2420Z-DS1B

General Information

Model	AE2420Z-DS1B	**Refrigerant**	R-404A
Test Condition	EN12900 ASERCOM	**Performance Test Voltage**	115V ~ 60HZ
Return Gas	20°C (68°F) RETURN GAS	**Motor Type**	CSIR

Performance Information

Evap Temp (°C)		Condensing Temperature (°C)			
		30	40	50	60
-40	Btu/h	1080	843	621	462
	Watts (Power)	268	271	266	245
	Amps	4.54	4.55	4.52	4.38
	Lb/h	16.7	14.8	12.7	11.3
-35	Btu/h	1380	1120	855	638
	Watts (Power)	311	317	317	306
	Amps	4.74	4.76	4.77	4.69
	Lb/h	21.5	19.6	17.3	15.5
-30	Btu/h	1770	1470	1150	867
	Watts (Power)	356	365	371	368
	Amps	4.99	5.03	5.07	5.05
	Lb/h	27.7	25.8	23.3	21.1
-25	Btu/h	2240	1890	1510	1150
	Watts (Power)	402	414	426	433
	Amps	5.28	5.34	5.42	5.47
	Lb/h	35.4	33.5	30.9	28.2
-23.3	Btu/h	2420	2060	1650	1250
	Watts (Power)	419	431	446	455
	Amps	5.38	5.46	5.56	5.62
	Lb/h	38.3	36.5	33.8	31.0
-20	Btu/h	2810	2400	1940	1480
	Watts (Power)	451	465	483	499
	Amps	5.60	5.69	5.82	5.93
	Lb/h	44.5	42.7	39.9	36.9
-15	Btu/h	3460	2980	2430	1870
	Watts (Power)	500	517	542	567
	Amps	5.95	6.08	6.26	6.44
	Lb/h	55.2	53.5	50.5	47.0
-10	Btu/h	4190	3630	2990	2310
	Watts (Power)	550	570	601	635
	Amps	6.33	6.49	6.73	6.99
	Lb/h	67.5	65.8	62.7	58.8

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	7.133491E+03	7.246161E+02	7.677921E+00	8.089003E+01
C2	2.393746E+02	1.193670E+01	7.733614E-02	2.959929E+00
C3	-4.261390E+00	-7.512693E+00	-6.228457E-02	1.223322E+00
C4	2.495911E+00	-8.975372E-03	-1.280830E-04	3.361551E-02
C5	-1.068034E+00	-1.562731E-01	-4.284649E-04	1.744290E-02
C6	-1.393848E+00	1.974506E-01	1.763492E-03	-2.731327E-02
C7	4.777777E-04	-4.272308E-04	-7.222296E-06	5.555560E-05
C8	-2.343877E-02	1.659224E-04	9.327642E-06	1.595156E-05
C9	-1.675000E-02	3.162506E-03	2.000010E-05	-2.249994E-04
C10	6.892701E-03	-9.743242E-04	-9.791286E-06	1.455304E-04

Value = C1 + C2 * Te + C4 * Te^2 + C7 * Te^3 + (C3 + C5 * Te + C8 * Te^2) * Tc + (C6 + C9 * Te) * Tc^2 + C10 * Tc^3

Te = Evaporator Temperature

Tc = Condensing Temperature